

Claims

1. A Vitamin A liposome, comprising:

5 Vitamin A serving as an active ingredient, and the support substance and the lipid ingredients serving as the accessories and the membranes.

2. The Vitamin A Liposome according to claim 1, wherein the content of Vitamin A is 0.1-20%, and the support substance 2-40%, the remainders are the lipid ingredients, buffer and water.

10 3. The Vitamin A Liposome according to claim 1, wherein the support substance is selected from one or several sorts of materials as follows: Mannitol, Sorbitol, Glucose, Sucrose, Lactose, Mycose, Sodium chloride, polyvinyl pyrrolidone, etc.

15 4. The Vitamin A Liposome according to claim 1, wherein the lipid ingredient is selected from one or several sorts of materials as follows: Soy lecithin, Yolk lecithin, Distearoylphosphatidyl choline, Dipalmitoyl Phosphatidyl Choline, Poloxamer, Dimyristoyl Phosphatidyl-choline, Ceramide, Nonionic Surfactant Brij, Cholesterol, etc.

20 5. A method of Vitamin A Liposomes preparation, characterized by that : the solid Vitamin A pro-liposome is made from Vitamin A and the lipid ingredients by adding the support substance; according to your needs, the Vitamin A Liposomes can be obtained through hydration and vibration by adding water into the Vitamin A pro-Liposomes before usage.

6. The method of Vitamin A Liposomes preparation according to claim 5, wherein the content of Vitamin A in the Vitamin A pro-Liposomes is 0.2-40%, and the support substance 1-80%, the remainders are the lipid ingredients.

25 7 The method of Vitamin A Liposomes preparation according to claim 5, wherein the process of Vitamin A pro- Liposomes preparation is as follows:

(1) The lipid solution can be obtained when Vitamin A and the lipid ingredients are melted by heating or dissolved by the organic solvent;

(2) The above-mentioned lipid solution is sprayed upon the support substance

suspending in the fluidized bed, the dry Vitamin A pro-Liposomes can be obtained after volatilization of the organic solvent; in addition, the Vitamin A Liposomes with the support substance can be also obtained from the lipid solution with Vitamin A and the aqueous solution with the support substance through the method of the film dispersion or
5 Fusion or Filling, the Vitamin A pro-Liposomes can be obtained after the Vitamin A Liposomes is dehydrated by freeze-drying or Spray-drying.